REMARKS

Claims 1, 4 – 10 and 12 – 15 are presented for reconsideration and further examination in view of the following remarks.

In the outstanding Office Action, the Examiner rejected claims 1, 4, 5, 7 and 14 under 35 U.S.C. §103(a) as being unpatentable over the combined teachings of U.S. Patent No. 6,466,694 to Kamada et al., European reference No. EP 0 587 450 to Kazuyuki et al., and U.S. Patent No. 6,512,828 to Wang et al.; rejected claim 6 under 35 U.S.C. §103(a) as being unpatentable over the combined teachings of Kamada et al., Kazuyuki et al., and Wang et al. as applied to claim 1 and further in view of U.S. Patent No. 5,717,794 to Koga et al.; rejected claim 8 under 35 U.S.C. § 103(a) as being unpatentable over the combined teachings of Kamada et al., Kazuyuki et al., and Wang et al. as applied to claim 1 and further in view of U.S. Patent No. 4,785,296 to Tabata et al.; and rejected claims 9, 10, 12, 13 and 15 under 35 U.S.C. § 103(a) as being unpatentable over the combined teachings of Kamada et al., Kazuyuki et al., and Wang et al. as applied to claim 1 and further in view of U.S. Patent No. 6,043,823 to Kodaira et al.

By this Response all the rejections are respectfully been traversed.

Rejections Under 35 U.S.C. 103(a)

1.   **Claims 1, 4, 5, 7 and 14**

The Examiner rejected claims 1, 4, 5, 7, and 14 as being unpatentable over the combined teachings of Kamada et al., Kazuyuki et al., and Wang et al.

Response

Applicants respectfully traverse the rejection.

To establish a *prima facie* case of obviousness, the Examiner must establish: (1) that some suggestion or motivation to modify the references exists; (2) a reasonable expectation of success; and (3) that the prior art references teach or suggest all of the claim limitations. *Amgen, Inc. v. Chugai Pharm. Co.*, 18 USPQ2d 1016, 1023 (Fed. Cir. 1991); *In re Fine*, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988); *In re Wilson*, 165 USPQ 494, 496 (CCPA 1970).

Applicants respectfully submit that the combination of references fails to teach or suggest all of the claim limitations.

Independent claim 1 recites: "[a] document modification apparatus...comprising: region extracting means for extracting *a plurality of regions* from the image data, each region being a unit to be modified;...modification specifying means for specifying kinds of the modifications for the target regions selected by the region selection means through the operator;...wherein the region extracting means...comprises a first judgment means...and a second judgment means for judging whether the attribute of the rectangle region, whose attribute has been judged by the first judgment means as 'others,' is one of a 'table,' a 'photograph,' and a 'frame' *according to a number of peaks detected..."* *Emphasis added.*

Kamada et al. discloses a document image processing device and method. An extracting unit 15 extracts an image *constituent element* (i.e., part of the image) structuring an input image from the image. The document image constituent element is a *partial image of a document image*, and means an element structuring the document image such as a character, etc. Normally, the document image constituent element is instructed *using the coordinate position of a document image region.* See

column 6, line 62 to column 7, line 10. Therefore, in contrast to the present invention, Kamada et al. fails to disclose "extracting a plurality of regions from the image data" as recited in claim 1. Instead, Kamada et al. teaches or suggests extracting a partial image, with the object being the simultaneous performance of region identification and intra-region recognition. See column 3, lines 8-15.

The Examiner states that Kamada et al. fails to disclose the features regarding the second judgment means. The Examiner cites Kazuyuki et al. in an attempt to cure the deficiencies of Kamada et al.

Kazuyuki et al. teaches an image processing method and apparatus. According to the invention, the input image is converted into rectangle data and is classified into a character area and an area of a figure, photograph, table or separator. Further, partial histograms of the left and right edges in the vertical and horizontal directions of the area which was temporarily determined to be a table area are calculated and compared, thereby indicating whether the area is a table area or not. See Summary of the Invention.

The Examiner asserts that Kazuyuki et al. shows judgment of a rectangle region whose attributes have not been judged to be "character" or "ruled line" are to be one of "table," "photograph" and a "frame" according to a number of peaks detected from the projection data.

However, in contrast to the Examiner's assertion, only in the case where frame lines of the table exist at the left and right edges and the top and bottom edges of the rectangle, is the rectangle determined to be a table area. See S905, S906, S908, and Figure 20. Further, the partial histograms determined to be a table area are temporarily obtained, and when the peaks are over three, the corresponding rectangle is determined to be a table area. Therefore, a judgment means for judging whether the attribute of the rectangle region is one of a "table," "photograph," and a "frame"

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according to the number of peaks detected from the projection area, as recited in claim 1, is not taught by Kazuyuki et al.

The Examiner asserts that neither Kamada et al. nor Kazuyuki et al. teaches or suggests "a second judgment means *operation being based on* whether the first judgment means identifies the attribute as others." The Examiner cites Wang et al. in an attempt to cure the deficiencies of the other two references.

Wang et al. teaches a page analysis system. In Wang et al., each block is analyzed to determine whether it is text data, non-text data, or "unknown" data. See column 5, lines 3-53. If the block is "unknown" data it is examined using OCR processing. The Examiner asserts that the OCR processing is the second judgment means recited in claim 1.

However, Wang et al. fails to teach or suggest that the attribute judged as "unknown" was determined *according to a number of peaks detected from the projection data* as recited in claim 1 of the present invention. Instead, OCR processing is used.

Therefore, Kazuyuki et al. and Wang et al. fail to cure the deficiencies of Kamada et al. The Examiner has not shown that the combination of Kamada et al., Kazuyuki, and Wang et al. teaches or suggests all of the limitation recited in independent claim 1. Therefore, claim 1 is asserted to be patentable over the cited references. Similarly, as dependent claims contain all of the limitations of the independent claim from which they depend, claims 4, 5, 7 and 14 are patentable over the cited references for at least the same reasons as claim 1.

Accordingly, Applicants request that the Examiner reconsider and withdraw the outstanding rejection of claims 1, 4, 5, 7, and 14 under 35 U.S.C. § 103(a).

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2.   Claim 6

The Examiner rejected claim 6 as being unpatentable over combined teachings of

Kamada et al., Kazuyuki et al., and Wang et al. as applied to claim 1 and further in view of Koga

et al.

Response

Applicants respectfully traverse the Examiner's rejection. The arguments above with

respect to independent claim 1 are herein incorporated by reference.

Koga et al. teaches a document recognition method and system. Koga et al. does not

account for the deficiencies of Kamada et al., Kazuyuki et al., and Wang et al. The Examiner has

not shown where Koga et al. teaches or suggests the features regarding the second judgment

means as discussed above. As such, all of the limitations of claim 6 are neither taught nor

suggested by the cited prior art.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw

the rejection of claim 6 under 35 U.S.C. § 103(a).

3.   Claim 8

The Examiner rejected claim 8 as being unpatentable over the combined teachings of

Kamada et al., Kazuyuki et al., and Wang et al. as applied to claim 1 and further in view of

Tabata et al.

Response

Applicants respectfully traverse the Examiner's rejection. The arguments with respect to

claim 1 are herein incorporated by reference.

Tabata, et al. teaches a method and system for displaying image data. Tabata et al. does not account for the deficiencies of Kamada et al., Kazuyuki et al., and Wang et al. The Examiner has not shown where Tabata et al. teaches or suggests the features regarding the second judgment means. As such, all of the limitations of claim 8 are neither taught nor suggested by the cited prior art for the same reasons stated above with respect to claim 1.

Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of claim 8 under 35 U.S.C. § 103(a).

4.   Claims 9, 10, 12, 13 and 15

The Examiner rejected claims 9, 10, 12, 13 and 15 as being unpatentable over Kamada et al., Kazuyuki et al., and Wang et al. as applied to claim 1 and further in view of Kodaira et al.

Response

Applicants respectfully traverse the rejection.

To establish a *prima facie* case of obviousness, the Examiner must establish: (1) that some suggestion or motivation to modify the references exists; (2) a reasonable expectation of success; and (3) that the prior art references teach or suggest all of the claim limitations. *Amgen, Inc. v. Chugai Pharm. Co.*, 18 USPQ2d 1016, 1023 (Fed. Cir. 1991); *In re Fine*, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988); *In re Wilson*, 165 USPQ 494, 496 (CCPA 1970).

Applicants respectfully submit that the combination of references fails to teach or suggest all of the claim limitations.

Independent claim 9 recites: "[a] document modification apparatus...region extracting means for extracting *a plurality of regions* from the image data...; automatic modification means

for automatically selecting target regions to be modified from the plurality of regions, and for

automatically modifying the selected target regions based on modifications that have been set in

advance;...wherein the region extracting means extracts rectangle regions as the target regions to

be modified, and the region extracting means comprise a first judgment means..., and a second

judgment means for judging whether the attribute of the rectangle regions, whose attribute has

been judged by the first judgment means as 'others,' is one of a 'table,' a photograph,' and a

'frame' *according to a number of peaks detected from the projection data...* " Emphasis added.

Kamada et al., Kazuyuki et al., and Wang et al. have been discussed above. The Examiner

asserts that the combination of these three references does not disclose automatic modification

means. The Examiner cites Kodaira et al. in an attempt to cure the deficiencies of the other three

references.

Kodaira et al. teaches a document processing system which can selectively extract and

process regions of a document. Similar to the reasons discussed above, Kodaira et al. does not

account for the deficiencies of Kamada et al., Kazuyuki et al., and Wang et al. The Examiner has

not shown where Kodaira et al. teaches or suggests the features regarding the second judgment

means.

The Examiner has not shown where the combination of Kamada et al., Kazuyuki, Wang et

al., and Kodaira et al. teaches or suggests all of the limitations of independent claim 9. Therefore,

claim 9 is asserted to be patentable over the cited references. Similarly, as dependent claims contain

all of the limitations of the independent claim from which they depend, claims 10, 12, 13, and 15 are

patentable over the cited references for at least the same reasons as claim 9.

Accordingly, Applicants request that the Examiner reconsider and withdraw the outstanding

rejection of claims 9, 10, 12, 13, and 15 under 35 U.S.C. § 103(a).

CONCLUSION

In light of the foregoing, Applicants submit that the application is now in condition for allowance. If the Examiner believes the application is not in condition for allowance, Applicants respectfully request that the Examiner contact the undersigned attorney if it is believed that such contact will expedite the prosecution of the application.
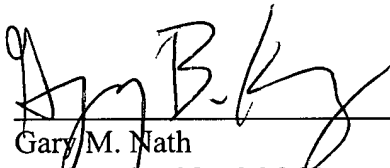
In the event this paper is not timely filed, Applicants petition for an appropriate extension of time. Please charge any fee deficiency or credit any overpayment to Deposit Account No. 14-0112.

Respectfully submitted,

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